Tracking New Coal-Fired Power Plants



Coal's Resurgence in Electric Power Generation





Tracking New Coal-Fired Power Plants

This information package is intended to provide an overview of "Coal's Resurgence in Electric Power Generation" by examining proposed new coal-fired power plants that are under consideration. The results contained in this package are derived from information that is available from various tracking organizations and news groups. Although comprehensive, this information is not intended to represent every possible plant under consideration but is intended to illustrate the large potential that exists for new coal-fired power plants.

Proposals to build new power plants are often speculative and typically operate on "boom & bust" cycles, based upon the ever changing economic climate of power generation markets. As such, it should be noted that many of the proposed plants will not likely be built. For example, out of a total portfolio (gas, coal, etc) of 500 GW of newly planned power plant capacity announced last year, 91 GW have been already been scrapped or delayed¹.

The Department of Energy does not guarantee the accuracy or suitability of this information.



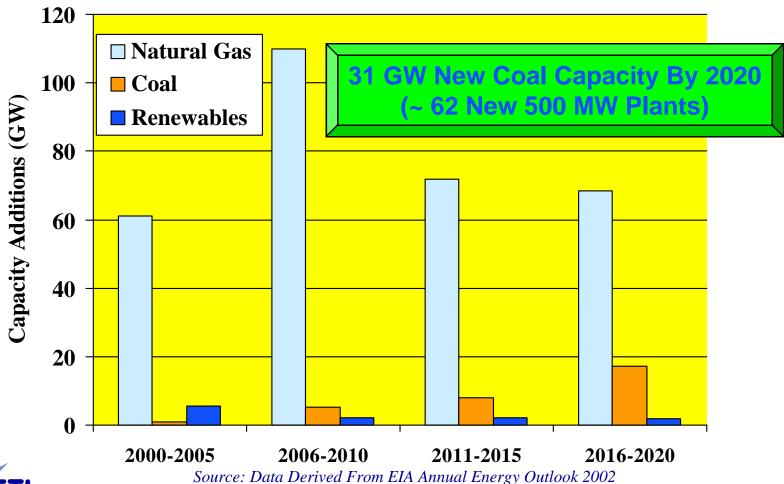
Sources: 1 - Energy Central Daily & Wall Street Journal

31 GW New Coal Capacity By 2020

(Accounts for 9% of New Capacity Additions)

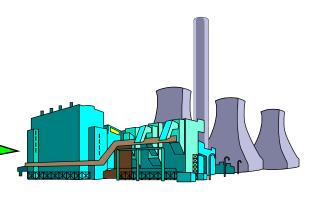
New Electricity Capacity Additions

(EIA Reference Case)





96 Proposed Plants
63 GW Power
\$ 68 Billion Investment



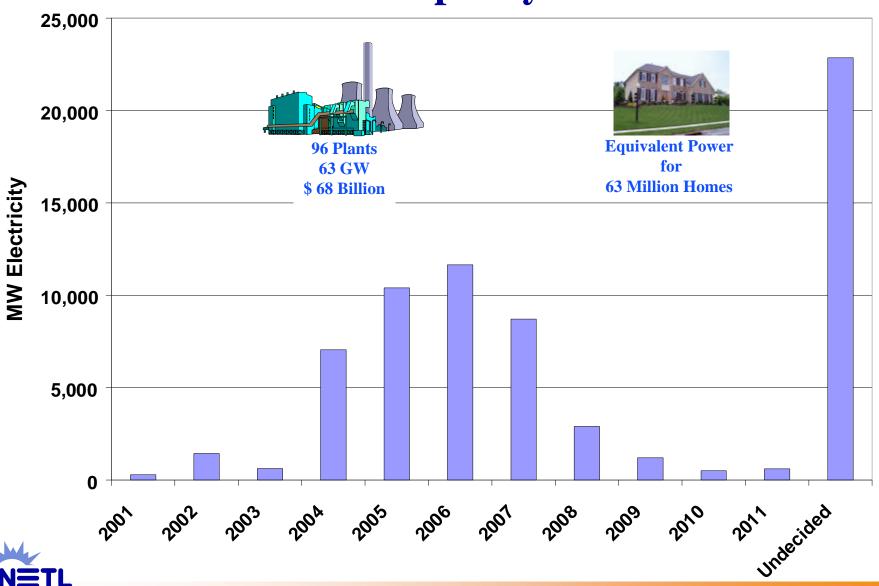






Coal's Resurgence in Electric Power Generation **Proposed New Plants Equivalent Power** 96 Plants for 63 GW A JOHN STORES **63 Million Homes** \$ 68 Billion 0.5 GW 2.8 **GW** 0.2 GW \$0.5 B \$2.8 B \$0.2 B 3.0 GW 1.0 GW 1.8 GW \$2.7 B \$1.5 B 3.0 GW \$2.1 B 0.5 GW \$3.0 B 2.1 GW \$0.5 B \$4.3 B 1.8 GW 0.8 GW \$2.6 B 1.4 **GW** \$0.9 B 5 0.6 GW \$1.9 B \$0.6 B 2.3 GW 3.5 GW 2.8 GW 1 \$2.4 B 1.3 GW \$3.7 B \$3.8 B 2.5 **GW** 1.8 GW 2 \$1.3 B 0.8 GW \$2.5 B \$2.0 B 5.2 **GW** 2 \$0.8 B \$5.5 B 1 **Undecided** 2.5 GW 1.6 GW 6.4 GW 3.1 GW 0.3 GW \$2.5 B \$1.6 B 1.1 GW \$6.8 B \$3.5 B \$0.3 B \$1.1 B 1.5 GW \$1.6 B \$1.5 B 0.5 GW \$0.5 B 0.8 GW \$0.8 B 3 **LEGEND** 0.6 GW 0.4 GW Capacity (GW) \$0.6 B \$0.4 B **Investment (B - Billion \$) Proposed Plants**

Coal's Resurgence in Electric Power Generation ** Annual Capacity Additions **





State	Plants		%	Investment	%
		(MW)	Capacity	(Million \$)	Investment
Alabama	1	1,500	2.4	\$ 1,500	2.2
Arizona	3	2,460	3.9	\$ 2,460	3.6
Arkansas	3	3,100	4.9	\$ 3,500	5.1
California	1	2,500	3.9	\$ 2,500	3.6
Colorado	2	1,280	2.0	\$ 1,340	2.0
Florida	3	750	1.2	\$ 750	1.1
Illinois	7	3,537	5.6	\$ 3,725	5.4
Indiana	1	525	0.8	\$ 525	0.8
lowa	2	1,410	2.2	\$ 1,850	2.7
Kansas	3	1,825	2.9	\$ 2,025	3.0
Kentucky	8	5,213	8.2	\$ 5,519	8.1
Louisiana	1	600	0.9	\$ 600	0.9
Maryland	1	180	0.3	\$ 200	0.3
Minnesota	3	2,725	4.3	\$ 2,725	4.0
Mississippi	1	440	0.7	\$ 440	0.6
Missouri	1	750	1.2	\$ 750	1.1
Montana	8	3,013	4.8	\$ 2,650	3.9
Nebraska	1	600	0.9	\$ 600	0.9
New Mexico	1	300	0.5	\$ 300	0.5
North Dakota	2	1,000	1.6	\$ 1,450	2.1
Ohio	3	2,130	3.4	\$ 2,280	3.3
Oklahoma	2	1,600	2.5	\$ 1,600	2.3
Oregon	1	500	0.8	\$ 500	0.7
Pennsylvania	3	1,845	2.9	\$ 2,125	3.1
South Carolina	2	1,600	2.5	\$ 1,585	2.3
Tennessee	2	1,100	1.7	\$ 1,100	1.6
Texas	1	500	0.8	\$ 500	0.7
Utah	5	2,750	4.3	\$ 3,750	5.5
Virginia	2	2,300	3.6	\$ 2,400	3.5
Washington	2	2,749	4.3	\$ 2,750	4.0
West Virginia	2	750	1.2	\$ 900	1.3
Wisconsin	6	3,600	5.7	\$ 4,250	6.2
Wyoming	5	1,880	3.0	\$ 2,550	3.7
Undecided	7	6,350	10.0	\$ 6,800	9.9
TOTALS	96	63,362	100	\$ 68,499	100

Coal's Resurgence State Summary



96 Plants 63 GW \$ 68 Billion



Equivalent Power for 63 Million Homes



** Database **

	PROPOSED	SIZE				
SPONSOR	LOCATION	TECHNOLOGY	TIMING	INVESTMENT	COAL TYPE	SOURCES
TVA Bellefonte Site	Alabama	1500 MW	Initiate - 2001	~ \$ 1.5 Billion	High Sulfur Coal	
	Jackson County	IGCC-Texaco	In Service - 2005		Illinois Basin	7, 9, 12
Alabama Electric	Arizona	500 MW	Initiate - 2001	~ \$ 500 Million	Sub-Bituminous	
	Sumter County		In Service - 2007			9
Reliant Resources	Arizona	1,200 MW	Initiate - 2002	~ \$ 1.2 Billion	low Sulfur Sub-	
Hopi Tribe	Not yet located		In Service - 2008		bituminous	11
Tuscon Electric Power	Arizona	2 Units	Initiate - 2001	~ \$ 760 Million	Sub-Bituminous	
	Springerville	380 MW each	In Service - 2004, 2005			2, 3, 4, 12
Fort Chaffee Authority	Arkansas	2 Plants	Initiate - 2002	\$ 2.5 Billion	Arkansas Coal	
	Fort Chaffee	750 MW each	In Service - 2007			11
LS Power Services	Arkansas	1200 to 1600 MW	Initiate - 2001	\$ 1 Billion	Coal	
	Osceola		In Service - 2005			9
Fernald Power	California	2500 MW	Initiate - TBD	~ \$ 2.5 Billion	Coal	
	Humbolt Cty.		In Service - TBD			11
Tri-State Generation	Colorado	3 Units	Initiate - 2001	\$ 1.2 Billion	Coal	
and Transmission	Las Animas	400 MW each	In Service - 2005,06,07			11 , 4, 12
Deseret Generation &	Colorado	80 MW	Initiate - 2001	\$ 140 Million	Waste Coal	
Transmission Corp.	Rangely		In Service - 2004			1,3
Florida Power & Light	Florida	100 MW	Initiate -	~ \$ 100 Million	Coal	
	Crystal River		In Service - 2001			12
Jacksonville Electric	Florida	300 MW	Initiate -	~\$ 300 Million	Coal/Pet Coke	
	Duval	Combo cycle	In Service - 2002			12 , 3, 9
Lakeland Electric &	Florida	350 MW	Initiate - TBD	~ \$ 350 Million	Coal	
Water	Polk County		In Service - TBD			12

Red text above indicates recent updates



** Database **

	PROPOSED	SIZE				
SPONSOR	LOCATION	TECHNOLOGY	TIMING	INVESTMENT	COAL TYPE	SOURCES
Dynergy	Illinois	2 Plants	Initiate - 2003	\$ 1.5 Billion	Illinois Coal	
	Baldwin	650 MW each	In Service - 2007			1
Corn Belt Energy (DOE)	Illinois	82 MW	Initiate - 2001	\$ 140 Million	Waste Coal	
	Elkhart	LEBS	In Service - 2004			1, 2, 8, 12
Turris Coal Company	Illinois	25 - 35 MW	Initiate - TBD	~ \$ 35 Million	Coal	
	Elkhart		In Service - TBD			11
EnviroPower	Illinois	500 MW	Initiate -	~ \$ 500 Million	Coal	
	Franklin County		In Service - 2004			8, 12
Southern Illinois Power	Illinois	120 MW	Initiate - 2000	\$ 50 Million	Bituminuous	
	Marion		In Service - 2003		Coal Fines	8, 9, 12
Peabody	Illinois	1500 MW	Initiate - 2002	~ \$ 1.5 Billion	Illinois Coal	
Prairie Energy Campus	Washington Cty.		In Service - 2007		High Sulfur	1, 11, 12
EnviroPower	Indiana	525 MW	Initiate -	~ \$ 525 Million	Waste Coal	
	Fayette County		In Service - 2004			12
EnviroPower Property of the Invironment of the Invi	Indiana	500 MW	Initiate - 2001	\$ 600 Million	Waste Coal	
	Pike County		Cancelled 2002			2, 5, 8, 9, 12
EnviroPower Programme	Indiana	500 MW	Initiate - 2001	\$ 600 Million	Waste Coal	
	Sullivan County		Cancelled 2002			2, 5, 8, 9, 12
Alliant Energy	Iowa	450 MW	Initiate - 2002	~ \$ 450 Million	Coal	
			In Service - 2007			12
MidAmerican Energy	Iowa	960 MW	Initiate - 2001	\$ 1.4 Billion	Coal	
	Lake Manawa		In Service - 2007			13, 1, 8, 11
Sunflower Electric &	Kansas	600 MW	Initiate - 2002	\$600 - 800 Million	Coal	
International Energy	Garden City		In Service - 2005			1, 11, 12

Red text above indicates recent updates



** Database **

	PROPOSED	SIZE				
SPONSOR	LOCATION	TECHNOLOGY	TIMING	INVESTMENT	COAL TYPE	SOURCES
Sunflower Electric	Kansas	500 MW	Initiate -	~ \$ 500 Million	Coal	
	Holcomb		In Service - 2004			8
Kansas City	Kansas	725 MW	Initiate - TBD	~ \$ 725 Million	Coal	
Power & Light	latan		In Service - TBD			8
EnviroPower	Kentucky	500 MW	Initiate - TBD	~ \$ 500 Million	Coal &	
	Calvert City		In Service - TBD		Waste Coal	2
Peabody Group	Kentucky	2 Units	Initiate - 2001	\$2.1 Billion	Western Kentucky	
"Thoroughbred"	Central City	750 MW each	In Service - 2006		High Sulfur Coal	1, 3, 9, 12
Global Energy (DOE)	Kentucky	400 MW	Initiate - 1999	\$ 432 Million	High Sulfur	
	Clark County		In Service - 2004		KY Bituminous	8, 9
Cash Creek Generation	Kentucky	1000 MW	Initiate - 2001	\$ 1 Billion	Coal	
	Henderson Cty.		In Service - 2006			1
EnviroPower	Kentucky	525 MW	Initiate - 2001	\$ 600 Million	Waste Coal	
	Knott County		In Service - 2005			1, 2, 9, 12
East Kentucky	Kentucky	268 MW	Initiate - 2001	\$ 367 Million	Coal	
	Maysville	CFB	In Service - 2004			<mark>15</mark> , 8, 12
Kentucky Mountain	Kentucky	500 MW	Initiate -	~ \$ 500 Million	Coal	
Power	Perry County		In Service - 2003			12
Global Energy	Kentucky	520 MW	Initiate -	~ \$ 520 Million	Coal	
	Trapp County		In Service - 2004			12
NRG Energy	Louisiana	675 MW	Initiate	~ \$ 675 Million	Coal	
	New Roads		Cancelled - 2002			12
NRG Energy	Louisiana	600 MW	Initiate - 2001	~ \$ 600 Million	Coal	
	Pointe Coupee		In Service - 2006			2

Red text above indicates recent updates



** Database **

	PROPOSED	SIZE				
SPONSOR	LOCATION	TECHNOLOGY	TIMING	INVESTMENT	COAL TYPE	SOURCES
AES Corporation	Maryland	180 MW	Initiate - 1996	~ \$ 180 Million	Maryland Coal	
	Cumberland		In Service - 2001			2
Great River Energy	Minnesota	250-500 MW	Initiate -	~ \$500 Million	Coal	
	Dakota County	GCC or CFBC	In Service - 2008			11
Minnesota Power	Minnesota	225 MW	Initiate - 2001	~ \$225 Million	Coal	
	Grand Rapids		In Service - 2005			11
Excelsior Energy	Minnesota	2000 MW	Initiate - 2002	\$ 2.0 Billion	Coal	
Mesaba Energy Project	Northeastern	Gasification	In Service - 2006			11
Tractebel Power	Mississippi	440 MW	Initiate - 1997	\$ 500 Million	Lignite	
	Choctaw County		In Service - 2002			2, 11
Great Plains Power	Missouri	750 MW	Initiate - 2001	~ 750 Million	Coal	
	Weston		In Service - 2005			12 , 1
Composite Power	Montana	4 Plants	Initiate - 2001	\$ 1.5 Billion	Montana	
	Bear Creek	500 MW each	In Service - 2006		Coal	2, 8, 12
Bull Mountain	Montana	700 MW	Initiate - 2002	~ \$ 700 Million	Coal	
Development	Billings		In Service - 2006			8, 12
Rocky Mountain Power	Montana	113 MW	Initiate - TBD	~ \$ 150 Million	Coal	
	Hardin	Gasification	In Service - 2002			11 , 1, 8, 12
Comanche Park LLC	Montana	2 Plants	Initiate - 2002	\$ 300 Million	Montana	
	Yellowstone Cty.	100 MW each	In Service - 2004-05		Coal	1
Omaha Public Power	Nebraska	300 - 600 MW	Initiate -	~ \$ 600 Million	Powder River Basin	
District	Nebraska City		In Service - 2009			1, 11
Peabody Energy	New Mexico	300 MW	Initiate - 2002	~ \$ 300 Million	Coal	
	Star Lake		In Service - 2006			11, 12, 8

Red text above indicates recent updates



** Database **

	PROPOSED	SIZE				
SPONSOR	LOCATION	TECHNOLOGY	TIMING	INVESTMENT	COAL TYPE	SOURCES
Montana Dakota Utility	North Dakota	500 MW	Initiate - 2001	\$ 750 Million	North Dakota	
or Great River Energy	Gascoyne		In Service - 2008		Lignite	2, 3, 4, 8, 12
Great River Energy	North Dakota	500 MW	Initiate - 2002	\$ 700 Million	North Dakota	
	TBD		In Service - 2010		Lignite	12 , 1
Nordic Energy	Ohio	850 MW	Initiate -	\$1 Billion	Coal	
	Ashtabula	Cogeneration	In Service - 2006			8
Global Energy	Ohio	580 MW	Initiate - 2000	~\$ 580 Million	Coal Fines	1, 7, 3, 9, 11,
	Lima		In Service - 2002			12
Sunoco	Ohio	700 MW	Initiate - TBD	~ \$ 700 Million	Coal	
	Scioto County		In Service - TBD			12
SynFuel	Oklahoma	600 MW	Initiate - 2001	~\$ 600 Million	Coal	
	Enid	Gasification	In Service - 2004			8
LS Power Services	Oklahoma	1000 MW	Initiate - TBD	~ \$ 1 Billion	Coal	
	Sequoyah		In Service - TBD			8
PacifiCorp	Oregon	500 MW	Initiate -	~ \$ 500 Million	Coal	
			In Service - 2004			8
AES Corporation	Pennsylvania	800 MW	Initiate - TBD	~ \$ 800 Million	Coal	
	Beaver Valley		In Service - TBD			8, 12
Reliant Energy	Pennsylvania	520 MW	Initiate - 2001	\$ 800 Million	Waste Coal	
	Indiana		In Service - 2004			1, 2, 8, 12
EnviroPower	Pennsylvania	525 MW	Initiate - 2002	~ \$525 Million	Coal	
	Somerset		In Service - TBD			8
Santee Cooper	South Carolina	500 MW	Initiate - 2001	\$ 585 Million	Coal	
	Berkeley County		In Service - 2007			1, 12





** Database **

	PROPOSED	SIZE				
SPONSOR	LOCATION	TECHNOLOGY	TIMING	INVESTMENT	COAL TYPE	SOURCES
LS Power Services	South Carolina	500-1100 MW	Initiate - 2002	~ \$ 1 Billion	Coal	
	Marion Cty.		In Service - 2006			11
CME North America	Tennessee	1000 MW	Initiate - 2002	~ \$ 1 Billion	Coal	
Merchant Energy	Chattanooga		In Service - 2007			8, 11, 12
Pickwick Power	Tennessee	100 MW	Initiate -	\$100 Million	Coal	
TVA	Hardin County	CFB	In Service - 2004			13, 11, 8, 12
San Antonio Public	Texas	500 MW	Initiate -	~ \$500 Million	Coal	
Service Bd.	San Antonio		In Service - 2004			14
Utah Governor	Utah	3 Plants	Initiate - TBD	~ 2.5 Billion	Coal	
Mike Leavitt (R)	Delta	500 MW each	In Service - TBD			10
PacifiCorp	Utah	450 MW	Initiate -	~ \$ 450 Million	Coal	
	Emery		In Service - 2004			12
Intermountain Power	Utah	500 to 800 MW	Initiate -	\$ 800 Million	West Ridge Mine	
	Southwest		In Service - 2006			3, 4, 8, 12
Duke Energy North	Virginia	700 MW	Initiate - 2002	\$ 800 Million	Coal	
America	Isle of Wright	Gasification	In Service - 2008			1
LS Power Services	Virginia	1600 MW	Initiate - 2002	~ \$ 1.6 Billion	Coal	
	Sussex County		In Service - 2005			8
Composite Power	Washington	2500 MW	Initiate - TBD	~ \$ 2.5 Billion	Coal	
	Richland		In Service - TBD			11
U.S. Electric Power	Washington	249 MW	Initiate - 2001	~ \$ 250 Million	Low Sulfur Coal	
Globaltex	Whatcom County		In Service - 2004		Vancouver	1, 3, 4, 8
North American Power	West Virgina	300 MW	Initiate -	~ \$300 Million	Coal	
Group Ltd.	Not yet located		In Service - 2005			14

Red text above indicates recent updates



** Database **

		*	1			
SPONSOR	PROPOSED LOCATION	SIZE TECHNOLOGY	TIMING	INVESTMENT	COAL TYPE	SOURCES
Dominion Resources &		450 MW	Initiate - 2001	\$ 600 Million		
	West Virginia			\$ 600 Million	Central App. Coal &	
Anker Energy	Upshur County		In Service - 2005		Waste Coal	1, 2, 12
Alliant Energy	Wisconsin	500 MW	Initiate - 2001	~ \$ 500 Million	Coal	
			In Service - 2006			1, 9, 12
MidAmerican Energy	Wisconsin	250 MW	Initiate - 2002	~ \$ 250 Million	Coal	
	Cassville		In Service - TBD			8, 12
PG&E National Energy	Wisconsin	1,050 MW	Initiate -	~ \$ 1 Billion	Coal	
Group	Kenosha County		In Service - 2004-5			1
Wisconsin Energy &	Wisconsin	3 Plants (1 IGCC)	Initiate - 2002	\$ 2.5 Billion	Powder River Basin	
Madison Gas	Oak Creek	600 MW each	In Service - 2007-09-11		Sub-Bituminous	11 , 1, 12
North American Power	Wyoming	300 MW	Initiate - 2000	\$ 450 Million	Powder River Basin	
Power Group	Campbell County		In Service - 2004		Sub-Bituminous	4, 6, 7
North American Power	Wyoming	500 MW	Initiate - 2001	\$ 750 Million	Powder River Basin	
Power Group	Campbell County		In Service - 2005		Sub-Bituminous	4, 6, 7, 12
North American Power	Wyoming	500 MW	Initiate - 2001	\$ 750 Million	Powder River Basin	
Power Group	Campbell County		In Service - 2005		Waste Coal	6, 12
Black Hills Corp.	Wyoming	80 MW	Initiate - 1998	\$ 100 Million	Powder River Basin	
	Gillette		In Service - 2003		Sub-Bituminous	2, 4, 7, 12
Black Hills Corp.	Wyoming	500 MW	Initiate - 2001	~ \$ 500 Million	Powder River Basin	
	Gillette		In Service - 2005		Sub-Bituminous	2, 3, 4, 7, 12
Dominion Resources	Yet To Be	3 Plants	Initiate - TBD	~ \$ 3.3 Billion	Coal	
	Determined	2750 MW	In Service - TBD			7, 8
Great Plains Power	Yet To Be	4 Plants	Initiate - TBD	~ \$ 3.5 Billion	Coal	
	Determined	500 - 900 MW each	In Service - TBD			1

Red text above indicates recent updates



References

References

- 1. Energy Central Daily Electric News Release, www.EnergyCentral.com
- 2. New Plant Construction Report, www.EnergyCentral.com
- 3. Western Governors Capacity Watch, http://www.westgov.org/wieb/power/capacity.htm
- 4. Western Regional Council, http://www.wrcusa.com/
- 5. Indiana Merchant Power Plants, http://www.state.in.us/idem/oam/permits/powerplt/map.html
- 6. Telephone Discussions with Company Representatives
- 7. Company Websites
- 8. McIlvaine Company Utility Fax Alert & New Coal Fired Plants Report
- 9. Merrill Lynch, 6/4/01
- 10. Electricity Daily, 2/01/01
- 11. Coal Daily
- 12. Argus Energy New Generation Tracking Reports
- 13. Energy Info. Source
- 14. Power Jan/Feb 2002
- 15. Coal Age Nov/01

